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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,496	01/21/2004	Tomoyuki Ohzeki	FS-F03224-01	1131
37398	7590	04/06/2007	EXAMINER	
TAIYO CORPORATION			CHEA, THORL	
401 HOLLAND LANE				
#407			ART UNIT	PAPER NUMBER
ALEXANDRIA, VA 22314			1752	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/06/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/760,496

Applicant(s)

OHZEKI ET AL.

Examiner

Thorl Chea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-24,26-28,33 and 34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-24,26-28,33 and 34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the specification fails to provide the antecedent basis for the term “1-phenyl-3-pyrazolidone group”.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification fails to define 1-phenyl-3-pyrazolidone group as “phenidones”. The term “phenidone” has been used in the art as the developing agent having “3-pyrazodone” group. The “phenidone” is not a trademark for “1-phenyl-3-pyrazolidone group” such as asserted by the applicants.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4-9, 22-24, 26, and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination Okada et al (US Patent No 6,210,983), Oya et al (US 2002/0,048,732), Oya et al (US 2003/0,235,791), Oyamada et al (US 2003/0,087,204), Winslow et al (US Patent No. 5,891,615) and Purol et al (US Patent No. 5,236,816).

Okada et al discloses a photothermographic material containing silver halide, a non-photosensitive organic silver salt, a reducing agent and compounds having an X as an adsorption promoting silver halide and D is an electron donative group of atoms and L<sub>1</sub> is a covalent or a linking group. See formula (1) in column 3; the exemplified compound in columns 11-22, compounds 1-60. The compound contains X group within the scope of A and the W group within the scope of (W) claimed in the present claimed invention. D group is an electron donative group of formula (D-1), (D-2) and (D-3) in column 5, lines 10-25. The exemplified compound in column 13-14, compounds 7, 8 contains the group -NH(C=O)NHOH which is the hydroxyureas group claimed in claimed invention. Okada et al disclose the use of silver halide including silver iodide and silver halide having silver iodide content from 0.1 to 40 mole % in column 36, lines 3-17; bisphenols reducing agents in column 39, lines 21-32; and binder in column 41, lines 13-30. Winslow et al (US Patent No. 5,891,615) discloses a 3-pyrazolidones (phenidones) in column 16, lines 27 as reducing agent for organic silver salt and Purols et al (US patent No. 5,236,816) discloses the "penidones" as super-additive developing agent for silver ions including the "1-phenyl-3-pyrazolidone). See column 15.

Okada et al fail to disclose the development accelerator of formula (1) to (3) 1 and the 1-phenyl-3-pyrazolidone in claim 1, but development accelerator as claimed have been known in

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Oya et al (US 2002/0,048,732), Oya et al (US 2003/0,235,791) and Oyamada et al (US 2003/0,087,204), and the 1-phenyl-3-pyrazolidone has been known as an equivalent reducing agent for silver ion such as taught in Winslow et al and Purols. See '732 in the abstract formula (1) and formula (3) on page 2; '204 on page 3, formula (1) to (3) and '791 page 2, formula (1), (2), (6), (7). It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the development accelerator known in Oya et al (US 2002/0,048,732), Oya et al (US 2003/0,235,791) and Oyamada et al (US 2003/0,087,204) in combination with the use of a known equivalent of equivalent reducing agent for silver ion taught in Winslow et al or Purols in the material of Okada et al with an expectation of increasing the speed of development and an formation of silver image, and thereby provide a material as claimed.

6. Claims 10-14, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Okada et al (US Patent No. 6,210,983) in combination with Tsuzuki et al (US Patent No. 5,677,121), EP 1096310A2 (EP'310), Winslow et al (US Patent No. 5,891,615) and Purol et al (US Patent No. 5,236,816).

Okada et al discloses a photothermographic material containing silver halide, a non-photosensitive organic silver salt, a reducing agent and a compounds having an X as an adsorption promoting silver halide and D is an electron donative group of atoms and L<sub>1</sub> is a covalent or a linking group. See formula (1) in column 3; the exemplified compound in columns 11-22, compounds 1-60. The compound contains X group within the scope of A and the W group within the scope of (W) claimed in the present claimed invention. D group is an electron donative group of formula (D-1), (D-2) and (D-3) in column 5, lines 10-25. The exemplified compound in column 13-14, compounds 7, 8 contains the group -NH(C=O)NHOH

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which is the hydroxyureas group claimed in claimed invention. Okada et al disclose the use of silver halide including silver iodide and silver halide having silver iodide content from 0.1 to 40 mole % in column 36, lines 3-17; bisphenols reducing agents in column 39, lines 21-32; binder including copoly(styrene-butadiene) in column 41, lines 36-50; and silver salt of an aliphatic carboxylic acid including silver behenate in column 37, lines 35-40. Tsuzuki discloses the use of silver salt of an organic acid wherein the acid behenic is from 35 to less than 90 mol % to provide a photothermographic material with excellent storability, excellent graininess and high definite image (abstract, and column 1, lines 5-8. EP'310 on pages 38-39 discloses the binder for a photothermographic material including styrene-butadiene having glass transition temperature of less than 40 °C. Winslow et al (US Patent No. 5,891,615) discloses a 3-pyrazolidones (phenidones) in column 16, lines 27 as reducing agent for organic silver salt and Purols et al (US patent No. 5,236,816) discloses the "penidones" as super-additive developing agent for silver ions including the "1-phenyl-3-pyrazolidone). See column 15.

It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use a known binder taught in EP'310, the silver salt of an organic acid taught in Tsuzuki and an equivalent reducing agent in Winslow et al or Purols in the material taught Okada et al with an expectation of achieving a material excellent storability, excellent graininess and high definite image.

7. Claims 15-21 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Okada et al (US Patent No. 6,210,983) and Fukui et al (US 2002/0102502A1), Winslow et al (US Patent No. 5,891,615) and Purol et al (US Patent No. 5,236,816).

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Okada et al discloses a photothermographic material containing silver halide, a non-photosensitive organic silver salt, a reducing agent and compound having an X as an adsorption promoting silver halide and D is an electron donative group of atoms and L<sub>1</sub> is a covalent or a linking group. See formula (1) in column 3; the exemplified compound in columns 11-22, compounds 1-60. The compound contains X group within the scope of A and the W group within the scope of (W) claimed in the present claimed invention. D group is an electron donative group of formula (D-1), (D-2) and (D-3) in column 5, lines 10-25. The exemplified compound in column 13-14, compounds 7, 8 contain the group -NH(C=O)NHOH which is the hydroxyureas group claimed in claimed invention. Okada et al disclose the use of silver halide including silver iodide and silver halide having silver iodide content from 0.1 to 40 mole % in column 36, lines 3-17; bisphenols reducing agents in column 39, lines 21-32; and binder in column 41, lines 13-30.

Okada et al may not disclose the polyhalogenate compound of formula (H) 15 and the 1-phenyl-3-pyrazolidone in claim 15, but the polyhalogenate compound have been conventionally used as antifoggant for photothermographic material and taught in Fukui et al on page 18, [0188], and the 1-phenyl-3-pyrazolidone has been known as an equivalent reducing agent for silver ion such as taught in Winslow et al and Purols. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the antifoggant known in Fukui et al in the material of Okada et al to improve the fogging property, and the use of the known 1-phenyl-3-pyrazolidone in association with the formula (I) taught in Okada et al with an expectation of producing silver image, and thereby provide a material as claimed.

***Response to Arguments***

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8. Applicant's arguments filed January 20, 2007 have been fully considered but they are not persuasive of the ground of rejection set forth above. The as 1-phenyl-3-pyrazolidones has been known as known reducing agent for silver ion such as taught in Winslow et al or Purols, and it would have been obvious to the worker of ordinary skill in the art to use the as 1-phenyl-3-pyrazolidones in association with the compound of formula (I) taught in Okada et al with an expectation of serving similar function as reducing agent for silver ions in the formation of silver image. The argument with respect to the super-sensitization effects in the red to infrared region by using the compound of formula (I) taught in Okada et al is not well-taken since the claimed material encompasses the scope of the material sensitized in red to infrared taught in Okada et al.

#### *Conclusion*

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



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Note: The cancellation of the term "hydroxyureas" necessitate news ground of rejection above.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tch *tlh*  
2007-03-23

  
Thorl Chea  
Primary Examiner  
Art Unit 1752